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PEPNet

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PO BOX 278
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>> DENISIE KAVIN: HELLO.WELCOME TO THE SECOND DAY OF THE PEPNET WEBCAST ONLINE MEDIA. MY NAME IS DENISE KAVIN. I AM ASSOCIATE DIRECTOR FOR PEPNET NORTHEAST. THE PREVIOUS DAY'S EVENT WAS BROADCAST FROM THE UNIVERSITY OF TENNESSEE AT KNOXVILLE.

OUR PROGRAM TODAY WILL BE BROADCAST FROM THE NATIONAL TECHNICAL INSTITUTE FOR THE DEAF AT ROCHESTER INSTITUTE OF TECHNOLOGY.

THESE TWO INSTITUTES COLLABORATED WITH THE FOUR REGIONAL PEPNET CENTERS TO DEVELOP THIS WEBCAST.

THE PEPNET CENTERS ARE SUPPORTED BY CONTRACTS WITH THE U.S. DEPARTMENT OF EDUCATION, THE OFFICE OF SPECIAL EDUCATION AND REHABILITATION SERVICES AND THE OFFICE OF SPECIAL EDUCATION.

PEPNET STRIVES TO ENHANCE TRANSITION TO ACCESS WITHIN POST SECONDARY EDUCATION AND TRAINING FOR STUDENTS WHO ARE DEAF AND HARD OF HEARING.

ONE OF PEPNET'S RESPONSIBILITIES IS TO ADDRESS TECHNOLOGY USE, AND THIS WEBCAST IS ONE WAY THAT WE ARE PROVIDING THAT INFORMATION WHICH WILL FOCUS ON A VARIETY OF ONLINE MEDIA RESOURCES, AND INNOVATIVE WAYS TO ADDRESS ACCESSIBILITY, PARTICULARLY FOR STUDENTS WHO ARE DEAF AND HARD OF HEARING.

BOTH DAYS OF THIS EVENT WILL BE ARCHIVED ON THE PEPNET WEBSITE AT WWW.PEPNET.ORG.

IN THE INTEREST OF TIME, WE HAVE DECIDED TO TURN TO TECHNOLOGY TO PROVIDE EACH PARTICIPANT AND PRESENTER WITH AN EASY TO USE ENVIRONMENT TO ASK QUESTIONS, RECEIVE ANSWERS, AND STIMULATE DISCUSSIONS AS THEY RELATE TO THE PRESENTATIONS GIVEN OVER THE PAST TWO DAYS.

PLEASE REFER TO THE CONFIRMATION EMAIL YOU RECEIVED, WHICH PROVIDES DETAILS WHERE YOU CAN SIGN IN TO ASK YOUR QUESTIONS.

THE LEARN CENTRAL SOCIAL NETWORKING SITE IS NOW AVAILABLE FOR YOUR USE.

TODAY'S FIRST PRESENTATION WILL BE ON POLYCOM AND TANDBERG VIDEO CONFERENCING SYSTEMS.

WE HAVE A PANEL OF THREE PRESENTERS FOR THIS FIRST SESSION BARBARA KEEFE, WHO IS AN ASSISTIVE TECHNOLOGY SPECIALIST, WITH THE MAINE STATE ASSISTIVE TECHNOLOGY PROGRAM NINE AS SIGHT.

BARBARA IS ALSO AN OUTREACH SPECIALIST WITH PEPNET NORTHEAST.

THE SECOND PRESENTER IS SHERRY MAJEWSKI, WHO IS A CERTIFIED PROVIDER OF COMPUTER ASSISTED REALTIME TRANSCRIPTION SERVICES. ALSO KNOWN AS CART.

THE THIRD MEMBER OF OUR PANEL IS STEVEN ANGEL, WHO IS THE TECHNOLOGY ADMINISTRATOR FOR THE MAIN EDUCATION CENTER FOR DEAF AND HARD OF HEARING.

THANK YOU.

>> BARBARA KEEFE: WHAT IS THE CASE FOR THE USE OF VIDEO CONFERENCING SYSTEM, AND IS THERE A USE FOR VIDEO CONFERENCING SYSTEMS IN THE FIELD OF EDUCATION?

I LIVE AND WORK IN THE STATE OF MAINE, WHICH AS MANY OF YOU KNOW IS A VERY LARGE STATE WITH -- NOT VERY MANY PEOPLE.

SO, IT'S RURALITY HAS PERHAPS PROVIDED US WITH THE INCENTIVE TO USE DISTANCE TECHNOLOGIES, SPECIFICALLY VIDEO CONFERENCING.

WE KNOW THAT VIDEO CONFERENCING PROVIDES AN OPPORTUNITY TO USE QUALITY VIDEO, AUDIO, AND CONTENT-SHARING APPLICATIONS AT A DISTANCE WITH A WIDE VARIETY OF AUDIENCES AND ENVIRONMENTS.

FROM LECTURE ROOMS THAT HOLD 200 PEOPLE TO BOARDROOMS WHERE THERE MIGHT BE TEN OR 15 TO ACADEMIC CLASSROOMS, AND EVEN TO DESKTOP CONFERENCING SYSTEMS.

THIS PARTICULAR TECHNOLOGY RUNS THE GAMUT.

IT ALLOWS FOR VIDEO TO BE USED ACROSS MEDIA, AND ALLOWS PEOPLE TO COMMUNICATE ANYTIME AND ANYWHERE.

THIS IS A GLOBAL TECHNOLOGY.

WE KNOW THAT IN THE PAST, VIDEO CONFERENCING SYSTEMS HAVE HAD A BAD REP.

I THINK THEY STARTED IN THE BOARDROOM AND HAD SOMEWHAT OF AN ELITIST TAG ASSOCIATED WITH IT.

BECAUSE IT WAS CARRIED OVER ISDN LINE, WHICH WERE PRETTY COST EXORBITANT IN THE SENSE THAT EACH LINE WAS A COST PER MINUTE, AND THE FIELD OF EDUCATION REALLY COULD NOT AFFORD TO SUSTAIN THAT KIND OF TECHNOLOGY.

IT WAS USED, BUT IT WAS USED INTERMITTENTLY.

BUT IN THE PERIOD FROM 1997 TO ABOUT MID-2000, THE TELECOMMUNICATION INDUSTRY REALLY TOOK LEAPS INTO THE FUTURE WITH INTEGRATED NETWORKS.

SO, WE FOUND TELEPHONY AND DATA NETWORKS MERGING, AND FROM THAT POINT ON, WE WERE ABLE TO SEE VIDEO CONFERENCING EMBRACING FOR THE FIRST TIME INTERNET PROTOCOLS.

THAT WAS PRETTY IMPORTANT.

WE DON'T KNOW HOW MANY OF THESE UNITS REALLY ARE IN USE TODAY.

A SURVEY BY WAYNE HOUSE RESEARCH INDICATED THAT THERE ARE ABOUT 900,000 UNITS THAT WERE SHIPPED IN SEPTEMBER 2009.

THAT'S A LOT OF UNITS.

INTERESTINGLY ENOUGH, YOU WOULD THINK WITH A VERY BAD ECONOMY THAT THIS PARTICULAR INDUSTRY WOULD BE MAKING A FAIR AMOUNT OF MONEY, BUT IN TRUTH, THAT DID NOT HAPPEN.

BECAUSE IT IS A CAPITAL EXPENDITURE DURING OUR DOWN TIMES, THESE SALES WERE NOT TERRIBLY LARGE, HOWEVER, THE GOOD NEWS IS THAT THE SALES MARKET HAS PICKED UP SIGNIFICANTLY.

AND THAT'S GOOD NEWS FOR MOST AMERICANS.

YOU CAN SEE ON THE SLIDE THAT WE HAVE A CLASSROOM WITH STUDENTS IN IT, AND THAT'S CLEARLY ONE APPLICATION THAT WE'RE LOOKING AT.

ANOTHER IS THE BOARDROOM, AND THAT LOOKS PRETTY SOPHISTICATED.

WE ALSO KNOW THAT THERE ARE MANY VENDORS IN THIS FIELD.

THE REASON THAT WE ARE LOOKING AT POLL POLYCOM AND TANDBERG SPECIFICALLY TODAY IS THAT THEY REALLY HAVE OCCUPIED A GIANT PART OF THIS MARKET, AND THE SECOND REASON IS THAT THE THREE OF US HAVE WORKED WITH EACH OF THESE VENDORS IN A WAY THAT ALLOWS US TO FEEL FAIRLY GOOD ABOUT THEIR RECEPTIVITY TO ACCESS, PARTICULARLY CAPTIONING.

UNFORTUNATELY, THESE UNITS DO NOT ACT IN THE SAME WAY THAT THE TELEVISION ACTS FOR CAPTIONING.

IN ANY KIND OF TELEVISION ENVIRONMENT, YOU SEE LINE 21 WHERE THE CAPTIONING IS EMBEDDED, BUT THAT'S NOT TRUE FOR VIDEO CONFERENCING SYSTEMS.

THEY HAVE A WHOLE DIFFERENT WAY OF CAPTURING TEXT ONSCREEN.

AND A LITTLE BIT LATER, SHARI MAJEWSKI WILL TALK SHELF ABOUT HOW THAT HAPPENS.

HERE YOU SEE A PICTURE OF A WHITEBOARD BEING USED IN CONJUNCTION WITH THE VIDEO CONFERENCING SYSTEM.

WE KNOW THAT MANY APPLICATIONS CAN BE USED WITH THIS TECHNOLOGY, WHITEBOARD BEING ONE OF THEM.

CLEARLY, ANY APPLICATION THAT YOU CAN USE ON YOUR COMPUTER CAN ALSO BE USED IN CONJUNCTION WITH VIDEO CONFERENCING SYSTEMS.

DOCUMENT CAMERAS CAN BE USED. THIS IS A PICTURE OF A RATHER LARGE UNIVERSITY CLASSROOM. I THINK THIS IS THE UNIVERSITY OF GEORGIA. THAT LOOKS LIKE THE SPACESHIP ENTERPRISE, DOESN'T IT? YOU COULD LOOK THAT THE BRIDGE AND SAY, WHOA!

I HAVE TO TELL YOU THAT THERE'S SO MANY MYTHS CONNECTED TO VIDEO CONFERENCING THAT PEOPLE HAVE RESISTED USING IT. ONE RATHER COMMON MYTH CERTAINLY HAS TO DO WITH BROADBAND. WE NEED LOTS OF BROADBAND IN ORDER FOR THIS TECHNOLOGY TO BE USED, AND YOU KNOW IN MY ENVIRONMENT, IF I'M A LITTLE AGENCY, I CAN'T REALLY USE THAT. I CAN'T DEDICATE THAT MUCH BROAD BAND. NOT TRUE ANYMORE.

I WAS CERTAINLY ONE OF THOSE PEOPLE WHO KNEW OR THOUGHT THEY KNEW YOU HAD TO HAVE A LOT OF BROAD BAND BEFORE YOU COULD ACTUALLY USE VIDEO CONFERENCING.

WELL, NOW, VIDEO CALLS CAN BE MADE AT ANY BANDWIDTH, WHETHER YOUR THE BIG AUDITORIUM THAT LOOKS LIKE THE BRIDGE OF THE STARSHIP ENTERPRISE OR WHETHER OR NOT YOU ARE LOOKING AT DESKTOP PUBLISHING CONFERENCING SYSTEM.

A DESKTOP CONFERENCING SYSTEM, IT DEPENDS UPON WHAT YOUR REQUIRED NEED WOULD BE AS TO THE AMOUNT OF BANDWIDTH THAT'S REQUIRED.

SECOND MYTH HAS TO DO WITH INTEROPERABILITY.

THIS IS A COMPLEX SYSTEM -- ISSUE WITH THESE UNITS.

WE KNOW IF IT IS NOT A STANDARDS BASED TECHNOLOGY, THAT ONE UNIT WOULD NOT NECESSARILY BE ABLE TO TALK TO ANOTHER UNIT.

PROBLEM, IF YOU HAVE ONE UNIT, AND SOMEONE ELSE IS USING A DIFFERENT SYSTEM, AND YOU CAN'T CONNECT, THAT DOES NOT HELP YOU AT ALL.

SO, IN THE WORLD OF TANDBERG AND POLYCOM, WE KNOW THAT THEY DO TALK WITH ONE ANOTHER.

THEY ARE INTEROPERABLE, AND THEY CAN CONNECT.

SO, THAT MYTH IS PUT ASIDE.

THIRD MYTH HAS TO DO WITH EXPENSE. THEY'RE JUST TOO EXPENSIVE TO USE! WELL, YOU CLEARLY KNOW THAT THAT BIG TELEPRESENCE -- THIS IS DUKE UNIVERSITY, BY THE WAY. WHEN I DIE AND COME BACK, I THINK I WANT

TO GO TO DUKE AND LIVE THERE. IT'S JUST A WONDERFUL TELEPRESENCE. BUT MOST OF US DON'T HAVE THE OPPORTUNITY TO BE IN THAT ENVIRONMENT. BUT WE DO HAVE DESKTOP IN OUR OFFICES, IN OUR HOMES, SOMETIMES, AND WE CAN CONFERENCE USING PCS.

SO, THE EXPENSE WOULD VARY FROM A BIG LECTURE AUDITORIUM TO THE DESKTOP, AND TO A WHOLE RANGE OF POSSIBILITIES IN BETWEEN. YOUR OFFICE -- YOU KNOW, A CLASSROOM, A BOARDROOM. SO, WE GET WHAT WE PAY FOR.

AND THE INTERESTING THING ABOUT THESE SYSTEMS, BECAUSE THEY ARE HIGH QUALITY VIDEO/AUDIO, AND HAVE CONTENT APPLICATIONS THAT INDEED PROVIDE THAT KIND OF HIGH QUALITY IN A LOT OF ENVIRONMENTS ACROSS A LOT OF MEDIA, FROM MANY END POINTS, THE INTERESTING THING IS THAT THE ADOPTION RATE FOR THESE TECHNOLOGIES ARE FAR GREATER THAN TRADITIONAL TECHNOLOGIES.

SO, YOU DO HAVE A RETURN ON INVESTMENT BECAUSE PEOPLE USE THEM.

SO, THE KINDS OF THINGS THAT WE WANT TO HAVE AVAILABLE TO NAVIGATE DISTANCE AND TIME ACTUALLY IS NEUTRALIZED WITH THIS TECHNOLOGY BECAUSE THEY ARE SIMPLE TO USE.

ONE OF THE CRITERIA -- I -- I AM NOT PARTICULARLY FOND OF TECHNOLOGY. I NEVER RAISE MY HAND AND SAY -- I REALLY WANT TO USE THIS FIRST! I USE IT WHEN IT APPLIES TO MY NEED. AND IN MY OFFICE IN MAINE, I HAVE A VIDEOPHONE. I HAVE SEVERAL COMPUTERS, I HAVE A CONFERENCING SYSTEM, I HAVE A CAPTEL TELEPHONE AND I NEED THAT TO WORK EFFICIENTLY. ALL OF THOSE TECHNOLOGIES ARE IN MY ENVIRONMENT TO USE BECAUSE THEY ARE SIMPLE, THEY ARE IMMEDIATE AND THEY ARE INTEROPERABLE. SO, THOSE ARE CRITERIA ARE PRETTY BASIC IN MY LIFE. AND I THINK IN THE LIFE OF A LOT OF OTHER PEOPLE.

WE'RE GOING TO LEAVE THE STARSHIP ENTERPRISE BRIDGE AND WE'RE GOING TO GO TO A PILOT. YOU KNOW, IT'S REALLY INTERESTING TO SEE HOW THE TECHNOLOGIES FIT IN MAINSTREAM. THEY'RE USED IN EDUCATION. THEY'RE USED IN BOARDROOMS. THEY'RE USED IN ACADEMIA, BUT PEPNET HAS THREE PILOTS THAT I'D LIKE TO SHARE WITH YOU.

PEPNET IS SUPPORTING TECHNOLOGY USE AND SETTING PRECEDENCE FOR USE IN COMMUNITIES, RURAL COMMUNITIES, WHERE THESE TECHNOLOGIES HAVE NOT TRADITIONALLY BEEN USED IN THE PAST.

MANY OF US KNOW THAT THE MISSION OF PEPNET IS TO SUPPORT DESK -- STUDENTS WHO ARE DEAF AND HARD OF HEARING, WHO ARE AT THE SECONDARY AND POST-SECONDARY LEVEL. AND HELPING STUDENTS

ACCESS THOSE PROGRAMS IS A PRIMARY GOAL OF THE PEPNET PROGRAMS. WELL, SOME OF THE BARRIERS THAT EXIST TO ACCESS FOR STUDENTS ACTUALLY IS ENGLISH LITERACY.

WITH THAT IN MIND, WE THOUGHT, WELL, IS THERE A WAY THAT WE CAN WORK WITH STUDENTS IN RURAL AREAS AGAIN -- I REALLY CARE ABOUT RURAL AREAS -- IS THERE A WAY THAT WE CAN PROVIDE STUDENTS WITH SOME DIRECT INSTRUCTION FROM A CREDIBLE INSTITUTION WHERE THEY HAVE SUCCESSFULLY WORKED WITH ADULT LEARNERS WHO ARE DEAF, AND MOVE THIS BEYOND URBAN CLUSTERS TO RURAL AREAS WHERE THOSE RESOURCES RARELY ARE NOT IN PLACE.

AND THE ANSWER WAS THAT WE WENT TO CITY UNIVERSITY OF NEW YORK AND TALKED WITH CAT BERLIN'S PROGRAM IN NEW YORK THIS IS A VERY SUCCESSFUL PROGRAM AND COLLABORATED WITH THE PROGRAM AND SOME OF THE STAFF AT LA GUARDIA TO DELIVER A PROGRAM TO A REMOTE SITE IN VERMONT.

BRATTLEBORO, VERMONT, IS WHERE OUR FIRST PILOT WAS VIDEOCONFERENCING TOOK PLACE.

WE ENROLLED FIVE ADULT LEARNERS WHO WERE DEAF AND WERE VERY INTERESTED IN IMPROVING THEIR ENGLISH LITERACY SKILLS. A YOUNG MAN BY THE NAME OF GARRETT ZIRCHER, WAS THE INSTRUCTOR AND HE DELIVERED THE COURSE IN SIGN LANGUAGE INSTRUCTION THAT WOULD NOT HAVE BEEN AVAILABLE NECESSARILY ANY OTHER WAY. WE EVALUATED THE PROGRAM, ASKED STUDENTS WHAT THEY THOUGHT OF THE TECHNOLOGY, DID IT SATISFY THEIR NEEDS.

WE ASKED THE TEACHER DID IT SATISFY HIS NEEDS? DID HE FEEL THAT THE COMMUNICATION AND INTERACTION WAS REALLY LIVE AND ENERGETIC, AND THE ANSWER WAS YES. SO, FEELING THAT THIS WAS SOMEWHAT IS OF A VERY SUCCESSFUL FIRST STEP WITH THAT EVALUATION, AND SOME RECOMMENDATIONS BY STUDENTS THAT INCLUDED THE NEED FOR LAPTOPS, BECAUSE I THINK THEY WERE SHARING A LAPTOP IN BRATTLEBORO, VERMONT.

WELL, AS WE SPEAK THERE IS A PROGRAM NOW IN JOHNSTOWN, PENNSYLVANIA, ANOTHER RURAL AREA IN THE MOUNTAINS OF PENNSYLVANIA, AT THE HIGH RAM G. ANDREWS CENTER. IT IS THERE THAT WE HAVE THESE STUDENTS, ADULT LEARNERS, WHO WERE VERY ANXIOUS TO IMPROVE THEIR ENGLISH SKILLS, AND THIS IS THE SECOND PILOT. AND THE DIFFERENCE IS THAT EVERY STUDENT HERE HAS A COMMUTER, AND IF YOU ARE LOOK REAL CLOSELY, YOU WILL SEE THAT THERE IS A LET LIGHT OR SEEMINGLY A LIGHT IN THE CENTER OF THAT TABLE THAT -- WHERE THOSE STUDENTS ARE GATHERED THAT'S A WONDERFUL ACCOMMODATION THAT

WAS MADE BY TWO OF THE FACULTY MEMBERS AT ST. FRANCIS UNIVERSITY WOULD BE ACTUALLY SUPPORTING THE CLASSES AND STUDENTS THERE.

ONE OF THE COMPLAINTS OF THE TEACHER FROM LA GUARDIA WAS THAT IT WAS VERY DIFFICULT TO GET ATTENTION FROM THE STUDENTS. ORDINARILY IN A CLASSROOM, COULD YOU FLICK LIGHTS AND SUDDENLY, THERE WAS ATTENTION FROM THE STUDENT GROUP. NOT SO MUCH WHEN YOU ARE -- YOU KNOW, 500 MILES AWAY FROM SOMEONE. SO, HE SAID, IT WOULD BE GREAT IF I COULD TURN ON A LIGHT AND GET PEOPLE'S ATTENTION.

SO, THESE TWO WONDERFUL PEOPLE AT ST. FRANCIS UNIVERSITY CAME UP WITH THE IDEA OF PUTTING A LIGHT IN THE MIDDLE OF THE TABLE, AND GIVING IT AN IP NUMBER. SO, HE JUST -- WHEN HE WANTS THE ATTENTION OF THE GROUP, HE MERELY FLICKS HIS SWITCH AT CITY UNIVERSITY OF NEW YORK, AND THE LIGHTS GO ON IN JOHNSTOWN, PENNSYLVANIA. JUST A VERY SIMPLE KIND OF ADAPTATION THAT JUST -- IS DYNAMITE. THAT WAS THE SECOND PILOT THAT WE SUPPORTED, AND CONTINUE TO SUPPORT IN JOHNSTOWN.

THE THIRD WAS ACTUALLY A RESPONSE TO A TECHNICAL ASSISTANCE REQUEST FROM A SMALL COMMUNITY IN VERMONT. IT HAPPENS THAT -- IT HAPPENS THAT A YOUNGSTER WHO WAS MOVING FROM MIDDLE SCHOOL TO HIGH SCHOOL REQUIRED AN INTERPRETER FOR HER INDIVIDUAL EDUCATION PROGRAM. LEGALLY MANDATED SERVICE. AND THERE WERE NO INTERPRETERS IN THAT AREA. IN THE PAST, IT WAS A REAL CHALLENGE TO FIND SOME, BUT NOW IT WAS EVEN GOING TO BE MORE DIFFICULT, BECAUSE THERE NEEDED TO BE CHANGE IN CLASSES FOR THE STUDENT, AND THERE NEEDED TO BE RESOURCES THAT WERE NOT PRESENT IN THIS COMMUNITY. AND IN THE PAST, IT ACTUALLY BROUGHT INTERPRETERS IN, PUT THEM UP IN HOTELS, AND WORKED A PROCESS THAT WAS REALLY UNSUSTAINABLE OVER TIME.

WITH THE TECHNICAL ASSISTANCE REQUEST, WE RESPONDED SAYING -- TO THE DISTRICT -- WOULD YOU BE INTERESTED IN PERHAPS A DEMONSTRATION OF VIDEO CONFERENCING TECHNOLOGIES? AND THE RESPONSE WAS -- WELL, YEAH, WE DON'T HAVE ANY FAMILIARITY WITH THIS, BUT WE WOULD BE WILL BE TO SEE WHAT IT LOOKS LIKE. SO, WE PUT A DEMONSTRATION IN PLACE, AND HAD AN INTERPRETER REMOTELY SIGNING TO -- AT THIS POINT, IT WAS A GROUP OF MIDDLE SCHOOL STUDENTS WHO KIND OF WATCHED, AND INTERACTED WITH A NATIONALLY CERTIFIED INTERPRETER, AND THEY LIKED IT. PARTICULARLY THE STUDENT WHO WAS MOVING AND TRANSITIONING TO THE HIGH SCHOOL ENVIRONMENT. WE DID SEVERAL OF THOSE DEMONSTRATIONS.

ONCE THE STUDENT WAS SATISFIED, WE INVITED THE PARENTS IN TO THE LOOP TO ACKNOWLEDGE WHETHER OR NOT THEY THOUGHT THIS WAS

SUFFICIENT AS A SERVICE THAT WOULD BE DONE REMOTELY. WE HAD AN ORIENTATION FOR ALL OF THE TEACHERS INVOLVED IN THE HIGH SCHOOL PROGRAM, AND IT WAS UNROLLED IN THE FALL. IT IS ONGOING NOW. THIS AS WELL AS WITH THE OTHER PROGRAMS WILL BE EVALUATED BY A RESEARCHER TO DETERMINE THE EFFECTIVENESS OF THE TECHNOLOGY USE.

THERE ARE MANY CHALLENGES, AND THERE CONTINUE TO BE CHALLENGES OF SOUND BECAUSE OBVIOUSLY, SOUND IS THE ACHILLES HEEL IN ANY KIND OF DISTANCE PROGRAM, SO WE WANTED TO INSURE THAT THE INTERPRETER IN PENNSYLVANIA WAS GETTING CLARITY OF SOUND. AND THIS WAS SOMEWHAT PROBLEMATIC INITIALLY. BECAUSE THE YOUNGSTER CHANGED CLASSES, WE HAD TO FIGURE OUT A WAY THAT THIS UNIT COULD BE MOVED. ALL OF IT WAS SOLVABLE, AND AGAIN, IT WAS A PILOT. PEPNET IS NOT PAYING FOR THE SERVICE. IT IS REALLY DEMONSTRATING THE TECHNOLOGY USE.

VRS AND VRI, THESE ARE NOT NEW SERVICES, BUT THEY ARE IN THAT COMMUNITY, AND THE APPLICATION OF USING VIDEO TECHNOLOGY IN THIS WAY IS PRECEDENT-SETTING.

NEXT YEAR, THE SCHOOL SYSTEM HAS DETERMINED THAT THEY WILL CONTINUE TO USE IT. WE WILL DISAPPEAR. AND GO TO A NEW LEVEL.

WE KNOW, TOO, THAT THIS VIDEOCONFERENCING SYSTEM AND THE EQUIPMENT IS BEING USED IN WISCONSIN TO DELIVER PROFESSIONAL TRAINING TO A VERY LARGE AGENCY. PEPNET IS NOT SUPPORTING THAT, BUT I MENTION IT BECAUSE THAT IS ONE WHERE CAPTIONING IS THE ACCESS FEATURE FOR THAT PARTICULAR POPULATION. AND THAT'S IMPORTANT.

MAYBE THE NEXT LEVEL OF PILOT WOULD BE TO TEST THE CAPTIONING CAPABILITY IN A NUMBER OF EDUCATIONAL ENVIRONMENTS. I'M GOING TO ASK SHARI TO SHARE WITH YOU HOW CAPTIONING CAN BE EMBEDDED INTO THESE UNITS. I THINK IT'S IMPORTANT TO NOTE THAT ALTHOUGH SHARI IS A CART PERSON, MANY OF THE ACCESS FEATURES ARE NOT ONES THAT SHE WAS PAID FOR. SHE DID A LOT OF HER WORK WITH US BECAUSE SHE REALLY FEELS VERY STRONGLY ABOUT ACCESS, AND SHE WILL EXPLAIN TO YOU WHY THIS CAPTIONING PIECE IS SO IMPORTANT. AND WE BRING IT AS PART OF OUR PROGRAM BECAUSE WE HAVE GOTTEN A LOT OF CALLS FROM OTHER STATES ASKING US SPECIFICALLY, HOW DO YOU HOOK THIS STUFF UP TO CAPTIONING? WELL, NOW WE'LL KNOW.

SHARI.

>> SHARI MAJEWSKI : THANK YOU, BARBARA.

GOOD MORNING, EVERYBODY.

AND A SPECIAL GOOD MORNING SHOUT OUT TO THE CAPTIONER WORKING VERY HARD FROM A REMOTE LOCATION.

AS BARBARA MENTIONED, I AM A CART PROVIDER, AND I PROVIDE ON-SITE SERVICE. I PROVIDE REMOTE CART SERVICE AND I PROVIDE CAPTIONING SERVICE ALSO KNOWN AS BROADCAST CAPTIONING, AND TO SOME TECHIES, LINE 21 CAPTIONING, WHICH SIMPLY REFERS TO THE TELEVISION SIGNAL WHERE THE CAPTIONS WERE EMBEDDED IN AN ANALOG SIGNAL.

CAPTIONING IS AN UMBRELLA TERM FOR ACCOMMODATIONS THAT ARE TEXT-BASED, AND THERE ARE MANY OF THEM, SOME OF THEM YOU KNOW, TYPEWELL, C-PRINT, CART AND BROADCAST CAPTIONING.

THE REASON I WANT TO BE VERY SPECIFIC TO START WITH ABOUT THE TERMINOLOGY THAT WE USE IS BECAUSE IT WILL BE IMPORTANT TO YOU WHEN YOU ARE LOOKING FOR A PROVIDER TO PROVIDE ACCESS, CAPTIONING ACCESS OVER YOUR TELECONFERENCE SYSTEMS, WHETHER YOU USE POLYCOM OR TANDBERG.

WHEN I TALK ABOUT CAPTIONING, THE TERM "CAPTIONING" AND I SLIP UP MYSELF, AND I USE THE UMBRELLA TERM CAPTIONING AS WELL, BUT THEY ARE REALLY SEPARATE, DISTINCT TECHNOLOGIES. BROADCAST CAPTIONING REFERS TO A -- SHALL WE SAY TRADITIONAL STENOCAPTIONING.

THE PROVIDER USES THOSE FUNNY LOOKING STENO MACHINES THAT COURT REPORTERS USE, AND IN ORDER TO DO BROADCAST CAPTIONING, YOU NEED A PARTICULAR SOFTWARE AND A PARTICULAR HARDWARE. CART IS THE SAME AS BROADCAST CAPTIONING, BUT NO TELEVISION PICTURE INVOLVED. NO VIDEO PICTURE INVOLVED.

IF YOU ARE CONNECTING, IF YOU WANT TO USE CAPTIONING FOR THE POLYCOM VIDEO CONFERENCE SYSTEM, WHAT DO YOU NEED TO ASK? WHAT QUESTIONS DO YOU NEED TO ASK A PROVIDER? IN ORDER TO INSURE THAT YOU GET THE PROVIDER THAT HAS THE CORRECT SOFTWARE/HARDWARE AND SKILL SET?

FIRST, YOU WOULD ASK, DO YOU HOLD CERTIFICATION AS A BROADCAST CAPTIONER?

SECONDLY, DO YOU HAVE BACKUP EQUIPMENT?

THE POLYCOM VIDEOCONFERENCE SYSTEM, THE TECHNOLOGY IS -- THEY USE AN ENCODER-TYPE SOFTWARE, AND THAT IS WHY YOU NEED TO BE SURE THAT THE PROVIDER THAT YOU HIRE HAS BROADCAST CAPTIONING SOFTWARE.

ONE THING TO KNOW -- I'M REALLY EXCITED TO SHARE THESE THINGS THAT WE HAVE LEARNED ALONG THE WAY TO SPARE YOU IN YOUR TROUBLESHOOTING, AND HOPEFULLY STRESS LEVEL, THE THING TO KNOW ABOUT THE POLYCOM VIDEOCONFERENCING SYSTEM WHEN YOU USE CAPTIONING WITH IT, IS THEIR CAPTIONING DISPLAY GOES AT A FIXED PACE.

IT'S-WHEN YOU SEE CAPTIONING ON TELEVISION, IT CAN -- THE PACE WILL SPEED UP OR SLOW DOWN, KEY PENDING UPON THE PACE OF THE INDIVIDUAL SPEAKING.

IN THE POLYCOM UNITS, IT IS SET TO BE A FIXED PACE OF SCROLL FOR THE CAPTIONING, AND SO THAT'S SOMETHING THAT, IF YOU INTEND TO USE THAT FEATURE, IT'S A GOOD IDEA TO TEST IT WITH A PROVIDER.

DO SOME TEST SESSIONS, AND SEE HOW THAT WORKS.

ALSO, WHILE WE'RE TALKING ABOUT THE POLYCOM SYSTEM, IF YOU HAVE A POLYCOM VSX 7,000 MODEL, PLEASE KNOW IF YOUR CAPTIONER COMES ON-SITE TO PROVIDE SERVICE, THEY WILL BE HOOKING UP VIA A SERIAL CABLE.

YOU CANNOT USE AN OFF-THE-SHELF SERIAL CABLE FOR THIS PARTICULAR MODEL. YOU MUST BUY THE SERIAL CABLE FROM POLYCOM. THE SERIAL CABLE LOOKS LIKE ANY OTHER SERIAL CABLE. SO IF YOU ORDER IT, YOU GET IT -- MARK IT, AND PUT A LABEL ON IT, YOU WILL KNOW THAT'S THE PROPRIETARY CABLE THAT YOU NEED.

MOVING ON TO TANDBERG.

WITH THE TANDBERG VIDEO CONFERENCE SYSTEM, IT IS A SCREEN SHARING APPLICATION SYSTEM, SO YOU COULD HIRE A PROVIDER THAT USES ANY SORT OF TEXT-BASED ACCOMMODATION SOFTWARE. BE IT TYPEWELL, C-PRINT, CART, A BROADCAST CAPTIONER, BECAUSE THEY ARE MERELY SHARING THEIR DESKTOP SCREEN WITH YOU.

IF THE -- IF YOU HAD A TANDBERG SYSTEM, AND YOU'RE GOING TO WANT TO DELIVER -- HIRE THE PROVIDER TO DELIVER THE CAPTIONS REMOTELY, TANDBERG'S APPLICATION TO DO THIS IS CALLED MOVI, AND IT'S A SCREEN SHARING APPLICATION.

PLEASE KNOW THAT FOR -- TO USE THIS TANDBERG HAS MINIMUM SPECIFICATIONS. A COMPUTER MUST BE A DUO CORE COMPUTER AND THEIR MOST REOWNER'S MANUAL DOES NOT STATE THAT.

IT'S A REALLY GOOD IDEA IF YOU ARE GOING TO DELIVER SERVICE THIS WAY, TALK TO YOUR TANDBERG REP, AND JUST GET THE MINIMUM SPECIFICATIONS NEEDED FOR ANYBODY WHO WANTS TO USE THE SCREEN SHARE APPLICATION.

TEAMWORK.

THIS IS TEAMWORK, AND WHAT THE CART PROVIDER OR CAPTIONER WILL ASK YOU -- FIRST THING, PROBABLY, IS TO INCLUDE THE I.T. PERSON OR DEPARTMENT IN THE PLANNING.

DO TEST SESSIONS.

THE CART OR CAPTIONER WILL WANT TO SET UP TEST SESSIONS AS WELL AS THE I.T. DEPARTMENT TO TEST THE EQUIPMENT. TEST THE STEPS NECESSARY ANY TIME HARDWARE SOFTWARE IS INVOLVED, THERE ARE LOTS OF LITTLE DETAILS, AND TO INSURE SUCCESS WHEN YOUR EVENT IS READY TO ROLL, DO TEST SESSIONS.

DISCUSS THE AUDIO SOURCE.

AND YOUR CAPTIONER OR CART PERSON CAN HELP YOU DISCUSS WHAT -- HOW TO DELIVER THE AUDIO IN THE BEST WAY, DEPENDING ON THE EVENT THAT YOU ARE INVOLVED IN.

PREP MATERIAL -- THE PROVIDER WILL BE ASKING YOU QUESTIONS SUCH AS, WHO ARE THE SPEAKERS.

WHAT IS THE TOPIC.

CAN YOU SHARE ANY OTHER INFORMATION TO ASSIST PREPARATION ON OUR END?

AND AGAIN, I CAN'T EMPHASIZE -- TEST. IF YOU HAVE A LOCAL PROVIDER IN YOUR AREA, THAT'S WONDERFUL. SET UP SOME SESSIONS IN ADVANCE OF A PLANNED EVENT, AND GO THROUGH THE ACCEPT STEPS. HAVE THE I.T. DEPARTMENT GO THROUGH THE STEPS. HOOK UP TO THE EQUIPMENT. SEE WHAT'S INVOLVED. IT JUST MAKES SO MUCH DIFFERENCE IN THE END.

WHERE TO LOCATE A PROVIDER.

IF YOU HAVE -- IF YOU DON'T WORK WITH A CART PROVIDER OR A CAPTIONER AT THIS TIME, AND YOU WANT TO KNOW HOW TO FIND ONE, THE FIRST REALLY GOOD PLACE TO LOOK IS YOUR STATE DEPARTMENT DIVISION FOR THE DEAF AND HARD OF HEARING AND LATE DEAFENED USUALLY HAVE ACCESS TO PROVIDERS IN YOUR LOCAL AREA OR PROVIDERS THROUGHOUT THE U.S.

AND IF NOT, THERE ARE A FEW WEBSITES THAT YOU CAN GO TO. FOR A CART PROVIDER, ONE GOOD WEBSITE RESOURCE FOR YOU IS A WEBSITE -- CARTINFO.ORG. IF YOU ARE LOOKING FOR A PERSON, A PROVIDER, WITH BROADCAST CAPTIONING SOFTWARE, A GOOD RESOURCE IS WWW.CAPTIONS.ORG. AND IF YOU STILL HAVE NO LUCK, FEEL FREE TO -- ON THE LEARNCENTRAL SITE, CONTACT ME, AND I WILL HELP YOU LINK UP TO SOMEBODY IN YOUR LOCAL AREA I'M GOING TO TURN IT OVER TO STEVEN ANGEL, WHO WILL PUT THE PIECES TOGETHER FOR US FROM AN I.T. PERSPECTIVE.

>> STEPHEN ANGEL: THANK YOU, SHARI. THANK YOU, SHARI AND THANK YOU, BARBARA.

YES, I AM AN I.T. PROFESSIONAL. I AM THE I.T. DEPARTMENT, IF YOU WILL.

AND I WORK AT MAINE EDUCATIONAL CENTER FOR THE DEAF AND HARD OF HEARING IN FALMOUTH, MAINE, A WONDERFUL ORGANIZATION WHO SERVE ACE LOT OF WONDERFUL KIDS OF ALL HEARING LEVELS.

I WANT TO TALK ABOUT TODAY SPECIFICALLY THE POLYCOM AND TANDBERG AND WHAT THEY CAN AND CAN'T DO. I PERSONALLY DON'T FAVOR ONE OVER THE OTHER. WE HAVE A LOT OF EXPERIENCE WITH THE POLYCOMS. WE HAVE HAD THEM FOR AGAIN UP TO SIX YEARS.

A FEW STATIONS WE HAVE HAD FOR A WHILE, WE HAVE HAD THE VSXS FOR THREE OR FOUR YEARS NOW, AND JUST RECENTLY, BARBARA HAS RECEIVED AND LET ME PLAY WITH THE HDX MODEL. SO, I HAVE A LOT OF EXPERIENCE WITH THE POLYCOM UNITS AND I'M GOING TO BE GOING THROUGH THAT.

JUST RECENTLY, PROBABLY IN THE LAST SIX MONTHS OR SO, I HAVE BEEN PLAYING WITH THE TANDBERG UNITS AS WELL. I DON'T HAVE AS YOU MUCH TO SHARE WITH THAT. BUT I DEFINITELY HAVE SOME EXPERIENCE WITH IT. SO, I'M GOING TO TALK ABOUT THOSE FOR A BIT AS WELL.

IF YOU LOOK AT OUR FIRST SLIDE HERE, YOU WILL NOTICE THAT THERE ARE ACTUALLY TWO PHOTOS HERE AND THE IMAGE IN THE UPPER LEFT IS ACTUALLY A LITTLE SCHEMATIC OF HOW REMOTE CAPTIONING WORKS WITH THE POLYCOM DEVICE.

YOU WILL SEE THE -- THE VSX SYSTEM IN THE LOWER RIGHT AND THE CAPTIONIST, STENO GRAPH MACHINE IN THE UPPER LEFT, AND THIS IS THE REMOTE SETUP.

>> YOU WILL SEE THAT THERE'S A MODEMS ON EACH END OF THE PHONE LINE CONNECTING THE CAPTIONIST WITH THE VSX. I JUST WANT TO TALK ABOUT THE MODEM SETUP, BECAUSE IF YOU TALK TO ANY CAPTIONIST, THEY WILL TELL YOU STORY, SOME GOOD, SOME BAD, SOME HORRIBLE ABOUT SETTING THESE MODEMS UP. IT CAN BE VERY TRICKY. YOU REALLY HAVE TO MAKE SURE THAT YOU GET IT RIGHT OR ELSE IT WON'T WORK WELL.

THE IMAGE IN THE LOWER RIGHT HAND CORNER OF THE SLIDE IS A SCREEN IMAGE I TOOK OF AN ACTUAL MEETING WE HAD AT THE GOVERNOR BAXTER SCHOOL FOR THE DEAF. SHARI DID IT HERSELF SEVERAL YEARS AGO. IT WENT VERY WELL, HOWEVER, LIKE SHARI WAS MENTIONING WITH THE SCROLL SPEED, WE ENDED UP GETTING A LITTLE BIT BEHIND. SO, EVEN THOUGH WE GOT THE MODEMS TO WORK, AND I THINK WE ACTUALLY HAD TO SEND THIS MODEM OUT TO BE CONFIGURED BY A WIZARD. SEE, I HAVEN'T DONE A LOT OF MODEM WORK. EVER SINCE THE INTERNET CAME ALONG, I HAD LESS NEED TO REALLY PROGRAM MODEMS.

SO, I STARTED WITH COMPUTERS IN EARLY '90S WHEN WE HAD BULLETIN BOARDS AND WHEN I WAS SETTING UP THIS MODEM TO CONNECT WITH THE VSX, AND TO CONNECT TO SHARI REMOTELY, I REALIZED THAT I WAS WELL OVER MY HEAD QUICKLY AS FAR AS PROGRAMMING THE MODEM. FOR EXAMPLE, YOU HAVE TO CONFIGURE THINGS CALLED DTR SIGNALS. AND OF COURSE, THERE'S ALWAYS BAUD RATE AND PARITY SETTINGS. A LOT OF -- A LOT MORE LANGUAGE INSIDE THIGHS LITTLE BOXES THAT WAS WELL BEYOND ME.

SO, I WAS LUCKY THROUGH BARBARA, TO HAVE A CONTACT THAT I SENT THE MODEM OUT AND IT WAS PROGRAMMED BY SOMEONE WHO KNEW THESE DEVICES, AND HENCE, WE WERE ABLE TO GET THIS REMOTE CAPTIONING WORKING THROUGH THE POLYCOM. SO, IT'S ONE THING I WANT TO REALLY STRESS, IF YOU ARE GOING TO DO REMOTE CAPTIONING WITH A MODEM THAT YOU HAVE IT TESTED AND CONFIGURED PROPERLY, WELL BEFORE YOUR PRESENTATION, THE TIME WHEN YOU ARE ON, BECAUSE IT CAN BE VERY DIFFICULT, AND I SPEAK FROM EXPERIENCE, WHEN I SAY THAT. THE MEETING DID GO VERY WELL. WE HAD THREE DIFFERENT LOCATIONS, AS YOU CAN SEE THERE. AND WE DID IT SEVERAL TIMES. SO, YOU KNOW, IT ENDED

UP WORKING VERY WELL, BUT WE HAD TO PUT A LOT OF WORK ON THE FRONT END, IN ORDER TO MAKE IT WORK WELL.

OTHER THAN THE SLOW SCROLL SPEED, I WAS VERY HAPPY WITH IT, AND IT WENT VERY WELL. AND AS YOU CAN SEE, ALSO FROM THAT PHOTO, YOU SEE WHERE THE LOCATION OF THE CAPTION IS. IT'S MORE TOWARDS THE BOTTOM OF THE SCREEN, AND YOU CAN ACTUALLY SEE THAT IT WAS BLOCKING OUT ONE OF THE PRESENTERS. THESE ARE DEAF MEN. HE WAS OUR SUPERINTENDENT AT THE TIME, DR. LARRY TODD. YOU CAN SEE THAT THE SCROLLS ADJUST -- THE SCROLLS ARE JUST COVERING HIS WHOLE BODY. THERE'S ONE THING THAT YOU CAN'T DO WITH THE POLYCOM IS CHANGE WHERE YOU PUT THOSE CAPTIONS. AT LEAST THAT'S THE WAY IT WAS THREE YEARS AGO.

NEXT SLIDE IS JUST THE LOCAL SETUP FOR WHEN THE CAPTIONIST IS IN THE BUILDING WITH THE POLYCOM UNIT, AND YOU WOULD BE USING THAT SERIAL CABLE THAT SHARI TOLD YOU TO HAVE WITH YOU, THE CAPTIONIST OUT THERE, AND THAT ALWAYS WORKS WELL.

AGAIN, WE'RE TAKING OUT THAT MODEM OUT OF THE PICTURE, AND EVERYTHING -- YOU KNOW, IT IS MUCH SMOOTHER AT THAT POINT WITH THE EXCEPTION THAT THE SCROLL SPEED STILL STAYS THE SAME. SO, YOU KNOW, WE WANTED YOU TO BE AWARE OF THAT, BUT THAT'S WHAT WE HAVE EXPERIENCED IN THE PAST. AND THAT IS SOMETHING THAT YOU WILL SEE YOURSELF. WE DO HAVE NEWER SOFTWARE VERSIONS FOR THE POLYCOM, VSX UNITS. I BELIEVE THEY'RE UP IN VERSION 9.-SOMETHING NOW. WE ACTUALLY HAVEN'T TESTED IT WITH THIS NEWER VERSION, SO I CAN'T SPEAK ABOUT IT. ABOUT OUR RECENT EXPERIENCE BECAUSE WE HAVEN'T USED THAT METHOD IN SEVERAL YEARS. BUT YOU KNOW, THAT'S SOMETHING THAT'S DEFINITELY IF SOMEONE OUT THERE IS WILLING TO TRY IT AND EXPERIMENT WITH IT, YOU CAN DEFINITELY SEE IF THAT SCROLL SPEED ISSUE STILL REMAINS.

THE NEXT ITEM THAT YOU WILL SEE IS SOME OF THE OTHER OPTIONS OF GETTING CAPTIONS SHOWN THROUGH POLYCOM SYSTEM. THE ONE ON THE UPPER LEFT HAND CORNER IS USING THE WEB INTERFACE. I WANT TO BACK UP FOR A MOMENT, BECAUSE WHAT I DID TO SHOW YOU THESE SLIDES, HOW -- HOWDY GET THE CAPTURE OF THE WEB INTERFACE WITH THE CAPTIONS ON THE SAME SCREEN, I'LL USE THE PROGRAM CALLED "PEOPLE IN CONTENT I.P. IT'S PART OF THE POLYCOM SOFTWARE. I DOWNLOADED FROM POLYCOM'S WEBSITE AND I INSTALLED IT ON MY COMPUTER. YOU CAN SEE A PICTURE OF PICTURE IN ME IN MY OFFICE SITTING AT MY COMPUTER. DOWNLOADED THE PEOPLE IN CONTENT IP SOFTWARE ONTO THAT COMPUTER.

I THEN USED IT TO CONNECT TO THE POLYCOM, AND THAT'S WHAT YOU SEE THERE, THAT'S THE WEB INTERFACE OF THE POLYCOM, SO YOU ARE LOOKING AT MY DESKTOP COMPUTER, AND FROM THERE, I WAS ABLE IT TO ACCESS THE WEB INTERFACE OF THE POLYCOM UNIT AND TYPE IN CAPTIONS THROUGH THAT WEB INTERFACE AND THERE YOU SEE THE CAPTIONS ON THE SCREEN. COMPLETE WITH MY MISSPELLING OF THE WORD "WEB." WHICH IS OKAY, BECAUSE ONE THING ABOUT THIS IS THAT IT'S NOT USING A COURT REPORTER STENOGRAPHER MACHINE, IT'S USING THE OLD FASHIONED KWERTY KEYBOARD. I WAS HAPPY THAT I SAW THE MISSPELLING. THAT KEYBOARD IS NOT PROFICIENT AS A COURT REPORTER'S OR STENOGRAPHER'S KEYBOARD.

THE UPPER LEFT SHOWS ME USING PEOPLE IN CONTENT IP, ACCESSING THE POLYCOM AS A REMOTE DESKTOP AND THEN USING MY COMPUTE TORE ACCESS THE WEB INTERFACE OF THE POLYCOM AND TYPING IN THE CAPTIONS. THE PHOTO ON THE LOWER RIGHT HAND CORNER JUST SHOWS WHAT IT WOULD LOOK LIKE IF YOU WERE IN A MEETING.

I HAD ANOTHER POLYCOM SET UP IN ANOTHER ROOM AT THE SCHOOL AND I JUST CONNECTED IT TO -- TO IT FROM OUR VSX TO THE VIEW STATION. IT'S AN OLDER MODEL, AND THAT IS JUST AN EXAMPLE OF WHAT THE CAPTIONING LOOKED LIKE. IF YOU NOTICE THE LOCATION OF THE CAPTIONS ON THESE TWO ARE IN THE UPPER LEFT HAND CORNER.

NOW, I DON'T KNOW IF THAT'S THE DIFFERENCE BETWEEN THE LINE 21 CAPTIONING, WITH THE COURT REPORTER -- THE STENOGRAPHER MACHINE ACCESSING VIA MODEM OR DIRECTLY THROUGH THE SERIAL CABLE OR IF IT'S JUST THE MATTER OF THE POLYCOM SOFTWARE ITSELF.

BUT THERE IS A DIFFERENCE.

THESE CAPTIONS ARE IN THE UPPER LEFT HAND CORNER, WHICH TO ME, I THINK IS MORE ATTRACTIVE. THIS NEXT SLIDE IS ANOTHER WAY OF GETTING CAPTIONS TO THE POLYCOM SYSTEM. IT'S USING GOOD OLD FASHIONED TELNET. IT'S A DOS PROMPT OR COMMAND PROMPT THAT'S ON APPLE OR P.C. OR UNIX OR LINUX SYSTEM I'M USING THE PEOPLE IN CONTENT IP SOFTWARE. RUNNING ON MY COMPUTER. YOU CAN SEE ME IN MY OFFICE THERE, THE LOWER RIGHT HAND CORNER. THE PICTURE IN PICTURE.

I'M TYPING TELNET AT THE COMMAND PROMPT. THE COMMAND IS TELL NETSPACE, IP ADDRESS, SPACE, 24 WHICH IS THE PORT FOR TELNET. IT THEN RUNS SOME COMMANDS AND YOU TYPE CC FOR CLOSED CAPTIONING, AND BOOM, EVERYTHING THAT YOU TYPE FROM THEN ON IS GOING TO SHOW AS YOU SEE IN THIS GRAPHIC, AND THE UPPER LEFT HAND CORNER. AND AS YOU CAN SEE, I -- I TYPED, I'M USING TELNET TO TRANSMIT CAPTIONS FROM MY DESKTOP COMPUTER.

I THOUGHT THAT WAS PRETTY SLICK WHERE I WAS USING PEOPLE IN CONTENT IP. IT'S A DESKTOP SHARING SOFTWARE FROM POLYCOM TO ACCESS TO POLYCOM TO SHOW MY DESKTOP TO SHOW YOU CAPTIONS. I THOUGHT THAT WAS VERY COOL MYSELF. ONE THING ABOUT TELENET AND THE WEB INTERFACE OF THE POLYCOM TO SHOW CAPTIONS THAT WAY IS ONE THING YOU MUST BE AWARE OF, OF COURSE, IS THE EVER-PRESENT FIREWALL THAT WE ALL HAVE TO CONTEND WITH. I DID THESE TESTS FROM WITHIN MY LAN, SO I DIDN'T HAVE ANY FIREWALL ISSUES. HOWEVER, I COULD HAVE JUST AS EASILY DONE THE TESTS ANYWHERE ON THE INTERNET.

TO ACCESS THE POLYCOM ON MY NETWORK. IT'S AGAIN ALL ABOUT FIREWALL PORTS OPENING PORTS, CLOSING THEM AND USING THE APPROPRIATE PORTS. I WILL NOT BORE WITH YOU THE TECH KNOLL DETAILS, JUST TO LET YOU KNOW, IF YOU ARE GOING TO BE DOING REMOTE CAPTIONING THROUGH THIS METHOD, BE EITHER THE WEB INTERFACE OR USING TELNET, IF YOU ARE GOING TO DO IT REMOTELY OUTSIDE OF A GIVEN NETWORK, YOU MUST BE AWARE OF THE FIREWALL ISSUES. I KNOW IT'S A VERY COMPLEX ISSUE AND WE ALL HAVE THEM, BUT IT'S SOMETHING THAT YOU WILL HAVE TO FACE, IF YOU ARE GOING TO BE DOING THIS SORT OF THING REMOTELY OUTSIDE OF A NETWORK.

THIS NEXT SLIDE JUST SIMPLY TALKS ABOUT USING VISUAL CONCERT. IT'S A DEVICE THAT YOU WILL SEE THERE IN THE MIDDLE OF THE GRAPHIC. THERE'S THE POLYCOM DEVICE, THE VSX IS ON THE LEFT. THE DEVICE CALLED THE VISUAL CONCERT VSX SITS THERE IN THE MIDDLE. IN THIS GRAPHIC, THEY HAVE A VIDEOCONFERENCING PHONE OFF TO THE RIGHT. IT COULD EASILY JUST BE A MICROPHONE.

BUT WHAT THE VISUAL CONCERT DOES, IT ALLOWS TO YOU A CONNECT A DESKTOP COMPUTER, LAPTOP COMPUTER AND TO SHOW THE DESKTOP OF THAT COMPUTER. THROUGH THIS VISUAL CONTENT DEVICE. THAT COULD BE WHAT SHARI WAS SAYING EARLIER. IT COULD BE AS SIMPLE AS SHOWING WHATEVER APPLICATION THAT YOU ARE USING, I THINK SHARI MENTIONED A FEW, AND SHARING THAT DIRECTLY INTO THE POLYCOM. THE PROBLEM WITH THAT IS YOU CAN'T SHOW THE PRESENTER, LIKE ME, RIGHT NOW, AND THE DESKTOP APPLICATION AT THE SAME TIME.

THERE'S ACTUALLY A PLAY BUTTON ON THAT DEVICE, PICTURED THERE IN THE MIDDLE, THAT YOU CAN PRESS "PLAY" OR PRESS "STOP" SO YOU CAN ACTUALLY SHOW THE PRESENTER OR SHOW WHAT'S ON THE DESKTOP OF THE COMPUTER. WITH CAPTIONS, THAT WOULDN'T REALLY BE APPLICABLE BECAUSE YOU WANT THE CAPTIONS CONTINUALLY SCROLLING DOWN THE SCREEN. IN ESSENCE, YOU WOULD LOSE THE PRESENTER, WHO WOULD BE RIGHT AT THE POLYCOM, PRESENTING. S OF, COULD BE ONE OF THE REMOTE LOCATIONS AS WELL, I JUST WANTED YOU TO BE AWARE OF THE FACT THAT WHEN YOU USE A VISUAL CONCERT SYSTEM, IT TAKES THE VIDEO FEED

AWAY FROM ANY PRESENTERS THAT MAY BE THERE AS WELL. THAT'S MY SUMMARY OF THE POLYCOM UNITS.

NOW I'M GOING TO MOVE ON TO TANDBERG. I HAVE EXPERIENCE WITH TANDBERG EDGE PRODUCTS. LIKE I SAID, I HAVE JUST RECENTLY BEEN PLAYING WITH THEM. I REALLY DO LIKE THEM A LOT. THEY'RE REALLY HIGH QUALITY BUT THEY DON'T HAVE THE LINE 21 CAPABILITY THAT THE POLYCOMS DO. SO THOSE IMAGES THAT YOU SAW EARLIER LIKE THAT, AND THAT, THAT DOESN'T HAPPEN ON THE TANDBERG UNITS.

THEY DO DESKTOP SHARING AND IF YOU NOTICE THIS IMAGE, THE UPPER LEFT HAND IMAGE ON YOUR SCREEN, YOU WILL SEE THAT IT'S -- IN THIS CASE, THERE'S A DIRECT CONNECTION. THERE'S THE LAPTOP IN THE ROOM WITH THE TANDBERG DEVICE, AND THERE'S JUST A STANDARD VGA OR DBI CABLE CONNECTED BETWEEN THE TWO AND THE GRAPHIC IN THE LOWER RIGHT HAND CORNER SHOWS SUCH A CONNECTION.

WE ACTUALLY DID THIS, SHARI AND I WENT TO THE LOCAL TANDBERG DEALER'S OFFICE, AND WE WERE TESTING THEIR UNIT, AND WE CONNECTED WITH ANOTHER TANDBERG PROFESSIONAL FROM CONNECTICUT, VERY NICE MAN WHO HELPED US OUT, AND YOU WILL SEE IF YOU CAN SEE THE PICTURE IN PICTURE IN THE LOWER CORNER OF THAT GRAPHIC, YOU WILL ACTUALLY SEE A CONFERENCE TABLE. THAT'S WHERE SHARI AND I WERE WITH THE TANDBERG REP AND YOU WILL SEE ANOTHER GENTLEMAN THERE. WEIGHS ACTUALLY FROM CONNECTICUT. YOU CAN ACTUALLY SEE HOW IT LOOKS LIKE ON THIS SCREEN YOU WILL NOTICE THAT THE CAPTIONS ARE IN HUGE TEXT. SO, YOU CAN REALLY SEE THAT EASILY.

IT'S NOT AS EASY TO SEE THE PEOPLE IN THE LOWER RIGHT HAND CORNER. PARTICULARLY, SHARI AND I AT THAT VERY SMALL VIDEOCONFERENCING TABLE. THERE ARE DIFFERENT TEMPLATES USING THE CONTROL, REMOTE CONTROL AT TANDBERG UNIT. YOU CAN ACTUALLY SWITCH TO DIFFERENT SETUPS, DIFFERENT TEMPLATES. YOU KNOW, PERHAPS THE CAPTIONS AND THE IMAGES OF THE PEOPLE COULD BE HALF AND HALF. SO, THE DIFFERENT WAYS OF SHOWING IT, AND I JUST WANTED TO GET A SNAPSHOT OF IT LOOKING THIS WAY, BECAUSE IT JUST SHOWS HOW CLEAR THE TEXT IS. COMPARED TO WHAT IT LOOKED LIKE ON THE POLYCOM UNITS.

THE TANDBERGS CAN ALSO HAVE A REMOTE CAPABILITY AND SHARI MENTIONED IT BEFORE USING A SOFTWARE PROGRAM CALLED MOVI. CURRENTLY IT'S FOR PCS ONLY, HOWEVER THE MAC VERSION IS IN BETA. HOPEFULLY BY NEXT SEPTEMBER, AS I'M TOLD, THERE WILL BE A MAC VERSION OF THE MOVI SOFTWARE.

BUT AGAIN JUST LIKE I TALKED ABOUT, THE REMOTE CAPTIONING WITH POLYCOM, THERE'S LAPTOP CAN BE ANYWHERE, ON THE INTERNET, OR ON

THE NETWORK OF THE TANDBERG ITSELF.

I DID DO A -- THE IMAGE ON YOUR LOWER RIGHT HAND SIDE, IS A SCREEN SHOT OF WHAT IT LOOKS LIKE FOR SHARI THE CAPTIONIST. THIS IS A -- THIS IS A PICTURE THAT I TOOK OF HER LAPTOP AS WE WERE TESTING, AND YOU WILL SEE THE MOVI SOFTWARE IS THAT SCREEN IMAGE ON THE RIGHT, AND HER CART SOFTWARE IS ON THE LEFT.

NOW, I WANTED TO SHOW THOSE TWO SPECIFICALLY, SO YOU REALLY KNOW WHAT THAT LOOKS LIKE FROM THE CAPTIONIST POINT OF VIEW. HOW IT LOOKS LIKE TO YOU, THE USER, YOU WOULD SEE IT IN THIS IMAGE THAT I'M SHOWING YOU FROM THE PREVIOUS SLIDE. IT WOULD LOOK JUST LIKE THAT. THIS IS WHAT IT LOOKS LIKE TO THE CAPTIONIST.

AND YOU WILL NOTICE THERE'S THE MOVI SOFTWARE ON THE RIGHT HAND SIDE AND THERE'S AN ACTUAL, YOU WILL SEE A TOOLBAR RIGHT UNDERNEATH THE IMAGE AND THERE'S APP SHARE APPLICATION BUTTON. AND YOU WOULD CHOOSE WHICH APPLICATION IN THIS CASE, ITS WOULD SHARI'S CART SOFTWARE WITH THE SCROLLING TEXT ON IT. SO, ALL SHE HAD TO DO WAS CLICK ON THAT, AND THEN HER IMAGE WOULD BE SHARED THROUGH THE VIDEOCONFERENCING SESSION. AND HERE IS WHAT IT LOOKS LIKE. AGAIN, THE -- THIS IMAGE ISN'T SO GREAT.

I THINK IT WAS MORE MY CAMERA THAN ANYTHING ELSE, BUT YOU WILL NOTICE IT LOOKS A LITTLE BIT DIFFERENT, THE MOVI SOFTWARE, THE IMAGE OF US IN THE LOWER RIGHT HAND CORNER IS A LITTLE LARGER. YOU WILL SEE SHARI AND I, OUR HEADS THERE WITH DARRYL, THE GENTLEMAN WHO HELPED US, WHO TESTED WITH US AS WELL, BUT IT'S IMPORTANT TO SEE HOW THE CAPTIONS CAN FIT INTO THIS SCREEN, AND I PREFERRED THIS ONE, SO YOU CAN REALLY SEE WHAT WAS BEING SAID IN THE ROOM RIGHT THERE. AND YOU CAN SEE THE PEOPLE VISUALLY SEE THEM IN THE IMAGES AS WELL.

AND SHARI DID TOUCH UPON THIS, BUT THE END USER REQUIREMENTS -- THE IMAGE THAT YOU WILL SEE ON THIS SLIDE, THERE ARE TWO IMAGE, THE UPPER LEFT HAND CORNER, THE TECHNICAL SPECIFICATIONS FROM TANDBERG TO USE THE MOVI SOFTWARE.

YEAH, WE TRIED PENTIUM 4 AND NOT A DUO CORE. IT DID NOT WORK AT ALL. THE MOVI SOFTWARE DRAGGED IT TO A SCREECHING HALT. THE SPECS THEY'RE REALLY SHOWING RIGHT NOW ARE NOT IT. YOU NEED A LOT MORE THAN THAT. THE GENTLEMAN AT THE TANDBERG REP THAT WE WERE WORKING THAT DAY SAID, OH, NO, YOU NEED A DUO CORE.

WE SET UP ANOTHER DATE AND SHARI BROUGHT HER BRAND NEW DUO CORE COMPUTER AND WE STILL HAD PROBLEMS. SO, EVEN THEN WE WERE HAVING SOME ISSUES. FOR EXAMPLE, THE IMAGE IN THE LOWER RIGHT HAND

CORNER, YOU SEE THAT WHITE BAND ACROSS THE SCREEN?

WELL, JUST PICTURE THAT FLASHING AND MOVING ALL ACROSS THE SCREEN, AND IF SHARI HAD TO SIT THERE AND TYPE THROUGH AN HOUR OF THAT, I'M SURE THAT SHE WOULD HAVE GONE MAD, BECAUSE OF IT, BECAUSE IT WAS JUST SO DISCONCERTING.

NOW, AGAIN HER LAPTOP AND HER SOFTWARE, EVERYTHING MET THE MINIMUM REQUIREMENT, AND ACTUALLY MET THE REQUIREMENTS THAT THE TANDBERG REP TOLD US TO MEET AS WELL WHICH IS NOT PUBLISHED, THAT IS NOT RIGHT THERE. BUT IT STILL HAD SOME ISSUES. ACTUALLY, WE HAVEN'T RESOLVED THAT ONE. RIGHT NOW, IT SEEMS TO BE THE PROGRAMMERS OF SHARI'S SOFTWARE AND THE PROGRAMMERS OF TANDBERG'S MOVI SOFTWARE. THAT'S WHERE IT LIES NOW.

I'M NOT SAYING THAT'S WHAT YOU WILL EXPERIENCE, BUT WHAT YOU HAVE TO -- WHAT YOU WILL EXPERIENCE IS, YOU KNOW, YOU HAVE TO SEE FOR YOURSELF, BECAUSE AS WE KNOW, EVERY PC IS DIFFERENT. EVERY APPLICATION IS DIFFERENT. SO, IT REALLY, YOU KNOW, DEPENDS ON YOUR EXPERIENCE WITH IT. AS SHARI SAID, TEST. WITH POLYCOMS, WITH TANDBERGS, JUST KEEP TESTING. ALL THE TIME. GIVE YOURSELF PLENTY OF TIME BEFOREHAND, DON'T EXPECT TO WORK THAT DAY WITHOUT ANY TESTING. SO, THAT'S MY OFFICIAL WARNING TO YOU. ALWAYS DO SOME TESTING.

FOR YOUR OWN BENEFIT, AND AS YOU CAN SEE, I MEAN, WE DID ALL OF THIS TEST, AND IT STILL HAD AN ISSUE RIGHT AT THE END WHICH TO THIS MOMENT IS UNRESOLVED. SO, PLEASE DO TAKE THE TIME AS THE TECHNICIAN FOR ALL OF THE OTHER TECHNICIANS OUT THERE, SET UP TESTING TIMES. IT WOULD GREATLY BENEFIT YOU AND YOUR EXPERIENCE WITH EITHER THE POLYCOMS OR THE TANDBERGS. AND THAT IS MY LAST SLIDE.

THANK YOU.

>> TANDBERG AND POLYCOM HAVE REALLY PENETRATED THE U.S. MARKET. AND BECAUSE THEY HAVE, WE REALLY WOULD ENCOURAGE EVERYONE TO WORK WITH VENDORS IN THEIR LOCAL AREAS TO INSURE THAT ACCESS CONTINUES TO BE A PRIORITY FOR THESE GLOBAL COMPANIES. IT REALLY IS IMPORTANT THAT WE ADVOCATE FOR OUR NEEDS. WE ARE A SIGNIFICANT POPULATION, AND WHEN WE MAKE OUR NEEDS KNOWN, THEY WILL BE RESPONDED TO.

THERE ARE MANY GRANT OPPORTUNITIES THAT ARE PROVIDED BY THE FEDERAL GOVERNMENT. HAVING TO DO WITH RURAL UTILITY SERVICE. THIS IS THE BIG GRANT THAT ALLOWS FOR SCHOOLS AND AGENCIES TO APPLY FOR THESE TECHNOLOGIES, AND BECAUSE EACH OF THESE COMPANIES

REALLY WANT THEIR PRODUCTS IN THE MARKET, THEY ARE WILLING TO ASSIST YOU IN WRITING FOR GRANTS THAT WOULD PROVIDE THE TECHNOLOGY IN YOUR ENVIRONMENT. SO, MAKE USE OF THE VENDORS IN YOUR AREA TO ACCESS VERY SOPHISTICATED TECHNOLOGY AND TO WORK WITH THEM TO INSURE THAT THE APPLICATIONS ARE FULLY ACCESSIBLE.